

REMARKS

In reply to the Office Action of September 11, 2007, Applicants have amended claims 26, 28, 43, 59, 60, 63, and 64, and added new claims 67 and 68. Claim 66 has been canceled. Accordingly, claims 26-28, 31-37, 40-41, 43-44, 59-65, and 67-68 are pending, with claims 26, 43, 63, and 67 in independent form.

Claims 26, 43, and 63 stand objected to as a result of the limitation "wherein the light source and the surface opposite the light exit surface are substantially coplanar" (Action at page 2). In the present reply, claims 26 and 43 have been amended to remove the limitation "wherein the light source and the surface opposite the light exit surface are substantially coplanar." Accordingly, Applicants believe that amended claims 26 and 43 address the objections raised by the Examiner, and respectfully request reconsideration and withdrawal thereof.

It is Applicants' understanding that previous claim 63 does not include the limitation "wherein the light source and the surface opposite the light exit surface are substantially coplanar," but instead recites that "the light exit face and the surface opposite the light exit face are substantially parallel." As such, Applicants suggest that the objection to claim 63 is simply a minor oversight.

In this reply, claim 63 has been further amended such that it no longer requires that "the light exit face and the surface opposite the light exit face are substantially parallel." Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to claim 63. If Applicants' understanding of this objection is incorrect, Applicants request notification to this effect from the Examiner, after which Applicants will promptly address the objection.

The Action also states that "[n]ewly added limitations ... might seem to read on a non-elected species ... Applicant has constructively elected a closed ring type light source element [see claim 41 and Applicant's Figure 5]" (Action at page 2). To the best of Applicants' knowledge, there has been only one restriction of the claims in this application. In response to the Restriction Requirement of January 26, 2005, Applicants elected for further prosecution the

claims of Group I (claims 26-44), drawn to a light source element comprising a waveguide covered with reflectors that at least one of reflect and diffusely return light.

While Applicants agree that the pending claims cover "closed ring type light source element[s]," the claims also cover light source elements that do not include closed ring structures. If Applicants' understanding with regard to elections made in this application is incorrect, Applicants respectfully request that the Examiner contact Applicants to discuss the matter.

Claims 26, 27, 31, 43, and 59-66 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kalmanash (U.S. Patent No. 5,211,463, "Kalmanash") in view of Tatsuaki et al. (EP 0 798 507, "Tatsuaki") and Johnson et al. (U.S. Patent No. 6,439,731, "Johnson"). In particular, with regard to independent claims 26, 43, and 63, the Action alleges that Kalmanash discloses substantially all of the limitations of claims 26, 43, and 63 (Action at pages 4-6, 11, 23-25), but relies on Tatsuaki to allegedly teach that "at least one of the light exit face and the opposite surface of the light waveguide comprise light-scattering sections and plane sections, and an area ratio of the plane sections to the light-scattering sections along the light waveguide is set such that a uniform luminance of the light source element is achieved" (Action at pages 6-7, 12, 25-28). Further, the Action relies on Johnson to allegedly teach "using semiconductor light-emitting diode light sources" (Action at pages 9, 28-29).

Applicants do not concede the merits of the proposed combination of Kalmanash, Tatsuaki, and Johnson. However, to expedite prosecution, Applicants have amended claims 26 and 43 to cover light source elements and liquid crystal displays, respectively, that include, in part, "at least one projection formed in at least one lateral surface of the light waveguide, the at least one projection extending over less than an entire length of the at least one lateral surface of the waveguide and comprising two non-lateral surfaces on opposite sides of the projection that are connected by lateral surfaces of the projection [where] the at least one projection comprises a first lateral surface of the projection that is covered by a reflector, and a second lateral surface of the projection that is not covered by a reflector and is arranged at an acute angle relative to a principal direction of extent of the light waveguide, forming a light entry face." None of

Kalmanash, Tatsuaki, or Johnson discloses or suggests such light source elements and liquid crystal displays, for at least the following reasons.

First, none of Kalmanash, Tatsuaki, or Johnson disclose “at least one projection extending over less than an entire length of [a] lateral surface of the waveguide.” In fact, none of Kalmanash, Tatsuaki, or Johnson even discloses a projection as recited by claims 26 and 43. There is simply no disclosure relating to this feature in any of Kalmanash, Tatsuaki, and Johnson.

With reference to Kalmanash, for example, Figures 6 and 7 instead show a block 86 that includes *recessed* ends 100 that admit light from sources 102 into block 86. Ends 100 are not the “at least one projection” recited by claims 26 and 43.

With reference to Tatsuaki, for example, Figure 4 shows an exemplary light guide plate 21 that includes edges 41a-d. No projections are formed in any of edges 41a-d, and Tatsuaki provides no disclosure relating to the projections recited by claims 26 and 43.

Johnson does not even include a waveguide. To the extent that Johnson's diffuser panel 20 (e.g., see Figure 1 of Johnson) can be considered to form a waveguide (which Applicants dispute), diffuser panel 20 does not include projections formed in any lateral surfaces, and Johnson provides no disclosure relating to the projections recited by claims 26 and 43.

Second, none of Kalmanash, Tatsuaki, or Johnson disclose or suggest features corresponding to the claimed “at least one projection extending over less than an entire length of the at least one lateral surface of the waveguide,” as required by claims 26 and 43. Instead, as discussed above, each of Kalmanash, Tatsuaki, and Johnson discloses edge surfaces that do not include projections and extend along the entire length of the waveguide. For example, Kalmanash's ends 100 extend along the length of block 86, while edges 41a-d extend along the length of Tatsuaki's light guide plate 21, and the edges of Johnson's diffuser panel 20 extend along the length of the panel. None of Kalmanash, Tatsuaki, and Johnson includes any disclosure relating to projections that extend over less than an entire length of a lateral surface of a waveguide.

Third, claims 26 and 43 require that the at least one projection includes “two non-lateral surfaces on opposite sides of the projection that are connected by lateral surfaces of the projection,” and further that the projection includes “a first lateral surface of the projection that is covered by a reflector, and a second lateral surface of the projection that is not covered by a reflector and is arranged at an acute angle relative to a principal direction of extent of the light waveguide.” None of Kalmanash, Tatsuaki, or Johnson discloses or suggests any structural features which correspond to the non-lateral surfaces and the first and second lateral surfaces of the projections recited in claims 26 and 43, and Applicants cannot find any reasonable interpretation of Kalmanash, Tatsuaki, or Johnson (or any combination thereof) that discloses or suggests these limitations.

With regard to previous claim 28, the Action states that Kalmanash “discloses the light source element according to claim 27 above wherein at least one projection is formed in at least one of at least one longitudinal lateral surface and the opposite surface of the light waveguide, a lateral surface of said projection being covered by a reflector and another lateral surface of the projection lying free toward the outside and forming the aperture region” (Action at page 20). The Action does not indicate how Kalmanash’s ends 100 correspond to the at least one projection recited by amended claims 26 and 43. Applicants can find no reasonable interpretation of Kalmanash that is consistent with all of the features of the “at least one projection” recited by amended claims 26 and 43.

Nonetheless, even if Kalmanash’s ends 100 could at least be considered to form projections, which Applicants do not concede, Applicants submit that there is still no disclosure or suggestion in Kalmanash that relates to “at least one projection extending over less than an entire length of the at least one lateral surface of the waveguide,” as required by claims 26 and 43. Moreover, there is no disclosure or suggestion in Kalmanash that relates to projections that include “two non-lateral surfaces on opposite sides of the projection that are connected by lateral surfaces of the projection,” and that also include “a first lateral surface of the projection that is covered by a reflector, and a second lateral surface of the projection that is not covered by a

reflector and is arranged at an acute angle relative to a principal direction of extent of the light waveguide,” as required by claims 26 and 43.

Furthermore, a person of skill in the art would have had no reason to modify the devices of Kalmanash or Tatsuaki to provide the claimed light source elements and liquid crystal displays. Kalmanash's devices include extended light sources 102, which are tubular in shape (see Figures 6 and 7 of Kalmanash), positioned adjacent to edges 100. A person of skill in the art would not modify edges 100 to extend “over less than an entire length of the at least one lateral surface of the waveguide,” as recited by claims 26 and 43, because doing so would reduce the amount of light that enters block 86 from light sources 102, thereby reducing the brightness of Kalmanash's devices. Similarly, Tatsuaki's devices include tubular light sources such as, for example, fluorescent light 22 shown in Figure 4. A person of skill in the art would not modify edges 41a-d of Tatsuaki's light guide plate 21 to extend “over less than an entire length of the at least one lateral surface of the waveguide,” as recited by claims 26 and 43, because doing so would reduce the amount of light entering guide plate 21, thereby reducing the brightness of Tatsuaki's devices. Accordingly, notwithstanding the Action's statements regarding claim 28, neither Kalmanash nor Tatsuaki, alone or in combination, discloses or suggests the light source elements and liquid crystal displays covered by claims 26 and 43.

Sawayama (U.S. Patent No. 6,048,071, “Sawayama”) was cited with respect to a rejection of previous claim 28 in the Office Action, where the Action alleged that claim 28 was unpatentable over a combination of Kalmanash in view of Tatsuaki and Sawayama. As shown, for example, in Figure 9 of Sawayama, Sawayama discloses liquid crystal display devices that include an angled light-conducting body 44.

However, Sawayama, either alone or in combination with one or more of Kalmanash, Tatsuaki, and Johnson, fails to disclose or suggest the light source elements and liquid crystal displays covered by claims 26 and 43 for at least the following reasons. First, claims 26 and 43 require “at least one projection formed in at least one *lateral* surface of the light waveguide” (emphasis added). Sawayama does not disclose projections formed in lateral surfaces of waveguides. Instead, as shown in Figure 9 for example, Sawayama's light-conducting body 44

is formed in interface 48, which functions as a light exit surface for cell 10. There is no disclosure or suggestion in Sawayama that relates to forming a light-conducting body in a lateral surface of cell 10.

Second, Sawayama's light-conducting body 44 does not extend "over less than an entire length of the at least one lateral surface of the waveguide," as required by claims 26 and 43. To the contrary, as discussed above, Sawayama's light-conducting body 44 does not extend over a lateral surface of cell 10 at all, but instead extends over a light exit surface of cell 10. Moreover, light-conducting body 44 extends over an *entire* length of the light exit surface of cell 10. There is simply no disclosure or suggestion in Sawayama that relates to a light-conducting body that extends over less than an entire length of any surface of cell 10 (and in particular, a lateral surface of cell 10), and no reason to modify Sawayama in this regard, because such a light-conducting body would introduce less light intensity into Sawayama's liquid crystal cell, reducing its brightness.

Third, Sawayama's light-conducting body 44 does not include "a first lateral surface ... that is covered by a reflector" as required by claims 26 and 43. Instead, as shown in Figure 9 for example, neither surface 45, nor surface 43, nor any other surface of light-conducting block 44 includes reflectors. Furthermore, Sawayama provides no suggestion to cover either surface 45 or surface 43 with reflectors. If surface 45 was covered with a reflector, light from source 26 could not be coupled into light-conducting body 44. If surface 43 was covered with a reflector, light would not be able to exit cell 10. Thus, if either surface 45 or surface 43 was covered with a reflector, Sawayama's cell would no longer operate as he discloses.

Moreover, a person of skill in the art would have had no reason to combine Sawayama with Kalmanash and Tatsuaki. First, it is not at all clear, given the structures of Kalmanash's and Sawayama's waveguides, that these two references *can* be combined to yield the features of Kalmanash's waveguide with a light-conducting body of the type disclosed by Sawayama, for example. There is no indication in either Kalmanash or Sawayama of how such a combination could be made, and it is not obvious how to make such a combination given the very different modes of operation of the two waveguides.

In addition, it is not clear for what reason such a combination would be made. Applicants can find no disclosure in Kalmanash that suggests his waveguides can include light-conducting bodies similar to those disclose by Sawayama. There does not appear to be any suggestion in Kalmanash that it would be of any advantage to include such bodies, or how such bodies could be added to his waveguides.

Second, even if Kalmanash and Sawayama were combined (along with Tatsuaki), which Applicants do not concede, the combination still would not cover the light source elements and liquid crystal displays of claims 26 and 43, at least because none of Kalmanash, Tatsuaki, and Sawayama discloses: (a) a projection “formed in at least one lateral surface of the light waveguide”; (b) at least one projection “ extending over less than an entire length of the at least one lateral surface of the waveguide”; and (c) a projection that includes “a first lateral surface ... covered by a reflector.” Therefore, Applicants submit that a person of skill in the art would have had no reason to combine Sawayama with Kalmanash and/or Tatsuaki, and even if such a combination occurred, the result still would not be the light source elements and liquid crystal displays covered by claims 26 and 43.

Amended claims 26 and 43 also recite light source elements and liquid crystal displays that include a light source “positioned in front of at least one light entry face, the light source being a semiconductor light-emitting diode.” The Action admits that neither Kalmanash nor Tatsuaki discloses such light sources, but alleges that Johnson teaches the use of semiconductor light-emitting diodes, and further alleges that it would have been obvious to a person of skill in the art to combine Johnson with Kalmanash and Tatsuaki to provide light source elements and liquid crystal displays that include the claimed light sources (see Action at page 9). Applicants disagree, for at least the following reasons.

First, neither Kalmanash's light block 86 nor Tatsuaki's light guide plates (for example, light guide plate 21) are designed to accommodate light-emitting diode sources. For example, with respect to his display backlights, Kalmanash discloses the use of a “high brightness fluorescent backlight” (Kalmanash, col. 5, line 19) as his light source. The shapes of surfaces 100 and the extent of block 86 are designed to accommodate tubular light sources that extend

along the length of block 86 (e.g., perpendicular to the plane of Figure 6). Surfaces 100 are shaped to allow tubular light sources to be mounted in proximity to block 86, and to direct rays emerging from such tubular light sources over a broad range of angles into block 86. The shape of block 86 – and surfaces 100 in particular – is not designed with a view to accommodating light-emitting diode sources.

Similarly, Tatsuaki discloses display backlights that include, for example, a “cylindrically shaped fluorescent light 22 at the edge of a substantially rectangular light guide plate 21” (Tatsuaki, page 5, lines 25-26) as shown in Figure 4. With respect to Figures 13-17, Tatsuaki discloses that “[t]he corners of edge 40b, which is between edges 41b and 41b, and edge 40a, which is between edges 41a and 41d, are removed so that they do not stick out ... [and so] fluorescent light 62 can be installed with fixed gap 42 near edge 41, and the incident efficiency towards light guide plate 61 maintained at a high level” (Tatsuaki, page 10, lines 30-32). Therefore, the light sources disclosed by Tatsuaki are fluorescent lamps, and the modifications he makes to his light plates are expressly for the purpose of accommodating fluorescent lamps. Tatsuaki's light guide plates are not designed to accommodate light-emitting diode sources.

Thus, a person of skill in the art at the time of the invention would have had no reason to modify the teaching of Kalmanash and/or Tatsuaki to use light-emitting diode sources. As discussed above, the light blocks and light plates disclosed by Kalmanash and Tatsuaki are specifically designed to accommodate elongated, tube-shaped fluorescent sources. Light-emitting diode sources are not typically elongated and tube-shaped, and the shapes of the light blocks and light guide plates disclosed by Kalmanash and Tatsuaki are not optimized for such sources.

Furthermore, there would have been no motivation to combine Johnson with Kalmanash and Tatsuaki, at least because both Kalmanash and Tatsuaki disclose side-illumination of a light block or light guide plate, and Johnson expressly discourages side-illumination using light-emitting diodes. Johnson discloses that significant disadvantages arise from side-illumination of waveguides, even with light-emitting diodes, stating that “[t]hese attempts suffer the same limitation as light guides used with incandescent and fluorescent lamps: side lighting results in

unacceptably dark area in the central portion of a large area display” (Johnson, col. 2, lines 47-50). Accordingly, Johnson uses backlighting of liquid crystal displays to overcome some of the performance limitations of side-illuminated display panels.

Given Johnson's clear teaching of the disadvantages of side-illumination of waveguides, a person of skill in the art would have had no reason to combine Johnson with Kalmanash and Tatsuaki, as the Examiner proposes.

In view of the foregoing, Applicants submit that amended claims 26 and 43 are patentable over Kalmanash, Tatsuaki, Johnson, and Sawayama, alone or in combination. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 26 and 43 under 35 U.S.C. § 103(a).

In this reply, to expedite prosecution, independent claim 63 has been amended to recite “at least one projection formed in at least one lateral surface of the light waveguide, the at least one projection extending over less than an entire length of the at least one lateral surface and comprising a light entry face arranged at an acute angle relative to a principal direction of extent of the waveguide, ” and to further recite that “the at least one light entry face is configured so that a direction of maximum emission intensity of the semiconductor light-emitting diode is oriented at an oblique angle with respect to each of two principal directions of extent of the light waveguide, and parallel to a plane formed by at least one of the light exit surface and the opposite surface.” The amendments to claim 63 are supported by the originally-filed application at, for example, page 7, lines 10-12, and in Figures 1 and 4.

Semiconductor light-emitting diodes have a direction of maximum emission intensity – this is a property of such diodes. Moreover, the cited portion of the application discloses that “[t]he light source 5A is arranged such that the light radiation is beamed into the light waveguide 1 at a specific, oblique angle relative to a principal axis of the light waveguide 1” (Specification at page 7, lines 10-12). A person of skill in the art would understand that the angle at which the light radiation is beamed into the waveguide refers to the angle of the *direction of maximum emission intensity* of the light-emitting diode. Further, Figures 1 and 4 show the arrangement of the light-emitting diodes, which are oriented so that the direction of maximum emission intensity

of the diodes is parallel to, for example, the planes formed by the light exit face and the opposite face in Figure 1.

Amended claim 63 is patentable over Kalmanash, Tatsuaki, and Johnson, for at least the following reasons. First, as discussed above in connection with claims 26 and 43, none of Kalmanash, Tatsuaki, or Johnson discloses or suggests “at least one projection formed in at least one lateral surface of the light waveguide,” as required by amended claim 63. Applicants can find no reasonable interpretation of any of these references that is consistent with all of the features of the at least one projection recited in claim 63.

Second, none of Kalmanash, Tatsuaki, or Johnson discloses or suggests “at least one projection extending over less than an entire length of the at least one lateral surface,” as required by amended claim 63. Instead, none of the most closely corresponding features of the waveguides disclosed by Kalmanash, Tatsuaki, and Johnson (to the extent these references disclose waveguides) extend over less than an entire length of a lateral surface of the waveguides.

Third, amended claim 63 requires “a semiconductor light-emitting diode.” Neither Kalmanash nor Tatsuaki discloses or suggests the use of semiconductor light-emitting diodes. The Action states that Johnson teaches the use of such diodes, and that it would have been obvious to combine Johnson with Kalmanash and Tatsuaki to provide this subject matter (Action at page 28-29).

Applicants do not agree with this statement. As discussed above in connection with claims 26 and 43, neither Kalmanash's light blocks nor Tatsuaki's light guide plates are adapted to accommodate light-emitting diode sources, and both Kalmanash and Tatsuaki make clear that their devices are adapted for use with extended tube-shaped light sources. Further, Johnson expressly teaches that side-illumination of waveguides – as taught by Kalmanash and Tatsuaki – has several disadvantages when compared with back-illumination. Accordingly, a person of skill in the art would have had no reason to modify Kalmanash's light blocks or Tatsuaki's light guide plates to accommodate semiconductor light-emitting diode sources, and a person of skill in the art would not have used the light-emitting diodes disclosed by Johnson for side-illumination in

the devices of Kalmanash and Tatsuaki in view of Johnson's clear teaching of the disadvantages of such illumination. Applicants therefore submit that none of Kalmanash, Tatsuaki, and Johnson, alone or in combination, disclose or suggest a "semiconductor light-emitting diode," as required by amended claim 63.

Fourth, none of Kalmanash, Tatsuaki, or Johnson discloses or suggests a light entry face configured so that "a direction of maximum emission intensity of the semiconductor light-emitting diode is oriented at an oblique angle with respect to each of two principal directions of extent of the light waveguide, and parallel to a plane formed by at least one of the light exit surface and the opposite surface," as required by amended claim 63. As discussed above, Kalmanash and Tatsuaki fail to disclose or suggest semiconductor light-emitting diode sources. As such, neither Kalmanash nor Tatsuaki includes any disclosure, explicit or implied, that relates to the orientation of a direction of maximum emission intensity of a light-emitting diode, or indeed to any light source. The tubular light sources disclosed by Kalmanash and Tatsuaki emit light in an approximately uniform distribution around their circumference. As such, there is no "direction of maximum emission intensity" as recited by amended claim 63, and neither Kalmanash nor Tatsuaki can be fairly interpreted to provide any disclosure regarding a relationship between a direction of maximum emission intensity of a light source, the principal directions of extent of a waveguide, and the planes formed by the light exit surface and the opposite surface.

Johnson does not cure the deficiencies of Kalmanash and Tatsuaki, at least because Johnson is silent regarding the orientation of a direction of maximum emission intensity of his semiconductor light-emitting diodes. Further, as discussed above, it would not have been obvious to a person of skill in the art to combine Kalmanash and Tatsuaki with Johnson. Accordingly, none of Kalmanash, Tatsuaki, and Johnson discloses or suggests light source elements for which "a direction of maximum emission intensity of the semiconductor light-emitting diode is oriented at an oblique angle with respect to each of two principal directions of extent of the light waveguide, and parallel to a plane formed by at least one of the light exit surface and the opposite surface," as required by amended claim 63.

Applicants also believe that Sawayama, either alone or in combination with one or more of Kalmanash, Tatsuaki, and Johnson, fails to disclose or suggest the light source elements covered by claim 63. As discussed above in connection with claims 26 and 43, Sawayama does not disclose a light source element with "at least one projection extending over less than an entire length of the at least one lateral surface," as recited by amended claim 63, and a person of skill in the art would have had no reason to modify Sawayama to include such a projection, at least because doing so would reduce the brightness of Sawayama's liquid crystal cell.

Moreover, Sawayama fails to disclose or suggest a light entry face configured so that "a direction of maximum emission intensity of the semiconductor light-emitting diode is oriented at an oblique angle with respect to each of two principal directions of extent of the light waveguide, and parallel to a plane formed by at least one of the light exit surface and the opposite surface," as required by amended claim 63. Instead, in addition to Sawayama's failure to provide any disclosure relating to a semiconductor light-emitting diode, the light from Sawayama's light source enters at an angle to the planes formed by the light exit surface and the opposite surface of his liquid crystal cell (e.g., see Figure 24 of Sawayama), not "parallel to a plane formed by at least one of the light exit surface and the opposite surface."

Furthermore, a person of skill in the art would have had no reason to combine Sawayama with Kalmanash and Tatsuaki. First, it is not at all clear, given the structures of Kalmanash's and Sawayama's waveguides, that these two references can be combined to yield the features of Kalmanash's waveguide with a light-conducting body of the type disclosed by Sawayama, for example. There is no indication in either Kalmanash or Sawayama of how such a combination could be made, and it is not obvious how to make such a combination given the very different modes of operation of the two waveguides.

In addition, it is not clear for what reason such a combination would be made. Applicants can find no disclosure in Kalmanash that suggests his waveguides can include light-conducting bodies similar to those disclosed by Sawayama. There does not appear to be any suggestion in Kalmanash that it would be of any advantage to include such bodies, or how such bodies could be added to his waveguides.

In view of the foregoing, Applicants submit that amended claim 63 is patentable over Kalmanash, Tatsuaki, Johnson, and Sawayama, alone or in combination. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 63 under 35 U.S.C. § 103(a).

Claims 27, 31, 59-62, and 64-65 depend from one of claims 26, 43, and 63. In the present reply, claims 59 and 60 have been amended to bring the language of these claims into conformance with the language of amended claim 26.

In addition, claim 64 has been amended to cover light source elements in which “the light exit face and the surface opposite the light exit face are substantially parallel.” This amendment is supported, for example, by Figures 1 and 5 of the originally-filed application.

Claims 27, 31, 59-62, and 64-65 are patentable for at least the same reasons as claims 26, 43, and 63. Accordingly, reconsideration and withdrawal of the rejections of these claims under 35 U.S.C. § 103 (a) is respectfully requested.

Claim 28 has been amended to cover light source elements where “the at least one projection has a triangular shape.” Claim 28 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kalmanash and Tatsuaki in view of Sawayama. However, claim 28 depends from claim 26, and as discussed above in connection with claim 26, none of Kalmanash, Tatsuaki, Johnson, and Sawayama, alone or in combination, disclose the light source elements of claim 26. Claim 28 is therefore patentable over each of Kalmanash, Tatsuaki, Johnson, and Sawayama, alone or in combination, for at least the same reasons as claim 26. Accordingly, Applicants request reconsideration and withdrawal of the rejection of claim 28 under 35 U.S.C. § 103(a).

Claims 32-41 and 44 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kalmanash in view of Tatsuaki alone, or in view of Tatsuaki and one of the following: Waitl et al. (U.S. Patent No. 5,040,868, “Waitl”), Tai et al. (U.S. Patent No. 6,092,904, “Tai”), Suzuki et al. (U.S. Patent No. 5,949,346, “Suzuki”), Akahane et al. (U.S. Patent No. 5,667,289, “Akahane”), and Ge (U.S. Patent No. 6,369,867, “Ge”). Without

addressing the merits of these proposed combinations of references, Applicants note that claims 32-41 and 44 each depend from one of claims 26 and 43.

As discussed above, claims 26 and 43 are patentable over Kalmanash, Tatsuaki, Johnson, and Sawayama, alone or in combination. None of Waitl, Tai, Suzuki, Akahane, and Ge cures the deficiencies of Kalmanash, Tatsuaki, Johnson, and Sawayama with respect to claims 26 and 43. Accordingly, claims 26 and 43 are patentable over Kalmanash, Tatsuaki, Johnson, Sawayama, Waitl, Tai, Suzuki, Akahane, and Ge, alone or in combination.

For at least the same reasons, each of claims 32-41 and 44 is patentable over Kalmanash, Tatsuaki, Johnson, Sawayama, Waitl, Tai, Suzuki, Akahane, and Ge, taken alone or in combination. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejections of these claims under 35 U.S.C. § 103(a).

In this reply, new claims 67 and 68 have been added. Claim 67 covers light source elements that include, in part, "at least one projection formed in the opposite surface of the light waveguide, the at least one projection extending over less than the entire opposite surface, wherein the at least one projection comprises a first surface covered by a reflector, and a second surface not covered by a reflector and forming a light entry face, and wherein a light source is positioned in front of at least one light entry face, the light source being a semiconductor light-emitting diode." Support for this claim is found, for example, in previously pending claim 26, and in Figure 3 of the originally-filed application.

None of Kalmanash, Tatsuaki, Johnson, Sawayama, Waitl, Tai, Suzuki, Akahane, and Ge, alone or in combination, discloses or suggests the light source elements of claim 67, at least because none of these references discloses or suggests at least one projection formed in a surface opposite the light exit surface of waveguide, the projection extending over less than the entire opposite surface, and having a first surface covered by a reflector and second surface not covered by a reflector and forming a light entry face. Accordingly, Applicants request that claim 67 be allowed.

New claim 68 covers light source elements where "the at least one projection has a triangular shape." Support for this claim is found, for example, in Figure 3 of the originally-filed

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application. Claim 68 depends from claim 67, and is therefore patentable for at least the same reasons. Accordingly, Applicants request allowance of claim 68.

In view of the foregoing, Applicants ask that the application be allowed.

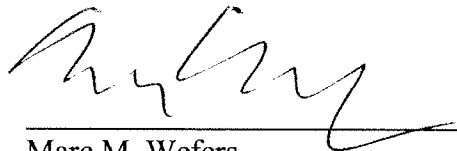
Canceled claims, if any, have been canceled without prejudice or disclaimer. Any circumstance in which Applicants have: (a) addressed certain comments of the Examiner does not mean that Applicants concede other comments of the Examiner; (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims; or (c) amended or canceled a claim does not mean that Applicants concede any of the Examiner's positions with respect to that claim or other claims.

The fees in the amount of \$1,050.00 for the Petition for Extension of Time fee and the excess claims fees in the amount of \$260.00 are being paid concurrently on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to deposit account 06-1050, referencing 12406-126001.

Respectfully submitted,

Date: _____

3/11/08



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